

GRIMES PROPERTY SITE
(Sheller Globe/ United Technologies)
(Keokuk, Iowa)

GENERAL DESCRIPTION

The site is located approximately 4 miles north of the city of Keokuk, Lee County, Iowa. The 33.5 acre site occupies the SW 1/4 of the SW 1/4 of Section 35, T66N, R5W. The site owned by David Grimes was entered on the Registry in September 1989. The EPA placed the site on the National Priorities List (NPL) in August 1990. From 1947 to 1970, the site used by the Sheller-Globe Corporation for open burning of solvents and disposal of industrial waste. Wastes were deposited directly into an open ravine with no liner or diversion system present. In 1973 the property was purchased by David Grimes, however the property is controlled exclusively by United Technologies Automotive Systems, Inc. through a long term access agreement.

SITE CLASSIFICATION

In 2001 the site was reclassified as "d" Site Properly Closed Requires Continued Management.

TYPE AND QUANTITY OF HAZARDOUS WASTE

- Wastes and contaminants known to be present include scrap rubber stripping, polyurethane foam, paint sludges which contained heavy metals, methyl ethyl ketone, benzene, toluene, bis(2-ethylhexyl phthalate, methylene chloride, and other solvents. Although the exact amount of waste is unknown, it is estimated that the total waste volume may be 200,000 cubic yards. Estimates have suggested that up to 55,000 gallons of solvents have been placed in the landfill.

Arsenic, chromium, lead, nickel, and zinc have been detected in monitoring wells significantly above background levels. Toluene and bis(2-ethylhexyl) phthalate were also detected in groundwater at the site. Soil samples collected near a leaking drum exposed at the site indicate the potential for contamination. The samples contained 1.1 mg/kg methyl ethyl ketone, 1 mg/kg benzene, 0.9 mg/kg toluene, 620 mg/kg bis(2-ethylhexthyl) phthalate, and 290 mg/kg di-n-octyl phthalate.

SUMMARY OF PUBLIC HEALTH AND ENVIRONMENTAL CONCERNS

The site is located in a rural area. It is believed nearly all local residents within 3 miles use groundwater from either the unconfined aquifer or the shallow bedrock aquifer as their sole water supply. There was an on-site well that was 300-feet deep that has been permanently abandoned.

Two intermittent streams border the site on the north and east and capture the surface runoff from the site. These streams converge near the site and flow into Lamalees Creek about one mile to the northwest. Lamalees Creek discharges into the Mississippi River approximately 2.5 miles downstream from the site.

SUMMARY OF ASSESSMENT, MONITORING OR REMEDIAL ACTIONS

The EPA is the lead agency and will continue to investigate the site. In October 1990 the EPA and Sheller-Globe signed an Administrative Order on Consent for a Remedial Investigation and Feasibility Study (RI/FS) at the site. The revised work plan for the RI/FS was submitted to the EPA in March 1991. The draft RI report was submitted for review in April 1993. The EPA completed its Baseline Risk Assessment in June 1994. The Record of Decision (ROD) was issued in September 1995. The remedy selected in the ROD includes the following:

Deed restrictions limiting future use of the site to non-residential purposes.

- Demolition of the on-site house. The demolition debris and other waste was successively covered with a thin clay lift, fabric filter, three 8-inch lifts of compacted clay, and a 12-inch layer of compacted topsoil. After seeding, an erosion control mat was spread and staked over the soil cover.

- Removal of all drums exposed at the ground surface. A total of 167 drums were found and disposed at the house site.
- Placement of a 12-inch soil layer in areas with ash material exposed at the surface. Four separated areas were covered with soil and seeded. There were also several divots from partially buried drums that were filled with soil and seeded.
- Seeding areas of contamination that are not currently vegetated. Several bare areas received some topsoil and were seeded.

A Remedial Design/Remedial Action Work Plan was submitted to EPA for review in January 1999 and approved in April 1999. The remedial action was conducted in November 1999 under the terms of a 1998 Consent Decree. A Superfund five-year review was conducted on the site in 2005, which concluded that the remedy is performing as expected and remains protective. A site inspection was conducted in September 2008. No problems were identified at that time. The department will continue to coordinate with the EPA to assure proper inspection and maintenance of the site.